National Institute of Environmental Health Sciences

Working in freshwater: The great lakes observing system contributions to regional and national observations, data infrastructure, and decision support

Author(s): Read J, Klump V, Johengen T, Schwab D, Paige K, Eddy S, anderson E, Manninen C

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Abstract:

The Laurentian Great Lakes is the world's largest freshwater ecosystem. A charge of the Great Lakes Observing System (GLOS) Regional Association is to help coordinate and integrate data and information relative to the needs of multiple user communities-decision makers with responsibility for coastal resources, maritime operations, human health and water security data, and issues associated with adapting to climate change and weather-related hazards. This article outlines the process GLOS has developed for determining regional data and information needs, how GLOS outreach activities inform data management functions and the development of decision support tools, and how the nearshore network of multiple observation platform types was conceived and is being implemented. The article finishes with a case study of this approach as it is being applied to source water protection, spill response, and search and rescue in the St. Clair River, Lake St. Clair, and Detroit River, the connecting channels that link Lake Huron to Lake Erie.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Quality

Geographic Feature:

resource focuses on specific type of geography

Freshwater

Geographic Location:

resource focuses on specific location

United States

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: General Foodborne/Waterborne Disease

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Exposure Change Prediction

Resource Type: ☑

format or standard characteristic of resource

Research Article, Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content